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14. ABSTRACT
Studies have demonstrated that Soldier and spouse functioning during times of deployment are bidirectional, each influencing the other. This study aimed to examine the relationships among Soldiers, Intimate Significant Others (ISOs), and their parents during a critical time period: deployment preparation. Preliminary analyses investigating family functioning indicated that, among both previously-deployed and first-time deployers, Soldiers were generally functioning well. However, emphasizing the importance of family support, Soldiers' perceptions of family function was a significant factor in predicting depressed mood prior to deployment. Further, among both Soldiers deploying for the first time as well as those who have previously deployed, family functioning and combat trauma significantly predicted stress symptoms. Combat exposure was the most important predictor of pre-deployment anxiety.

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Abstract

Studies have demonstrated that Soldier and spouse functioning during times of deployment are bidirectional, each influencing the other. This study aimed to examine the relationships among Soldiers, Intimate Significant Others (ISOs), and their parents during a critical time period: deployment preparation. Preliminary analyses investigating family functioning indicated that, among both previously-deployed and first-time deployers, Soldiers were generally functioning well. However, emphasizing the importance of family support, Soldiers' perceptions of family function was a significant factor in predicting depressed mood prior to deployment. Further, among both Soldiers deploying for the first time as well as those who have previously deployed, family functioning and combat trauma significantly predicted stress symptoms. Combat exposure was the most important predictor of pre-deployment anxiety.

Key Words

Soldier, Intimate Significant Other, Parents, Deployment, Stress, Depression, Anxiety, Life Satisfaction, Addiction, Trauma

The Military Family Coping Project reflects two phases. The first consisted of a series of focus groups with Soldiers, Intimate Significant Others (ISOs), and parents of Soldiers. While the sample size was small, this project demonstrated the need for and guided the work of the Military Family Coping Project Phase II funded by TATRC.

The Military Family Coping Project Phase II was designed to understand the perceptions of the impact of deployment preparation on Soldiers and their families.

Sample Context

Due to the active involvement of Fort Hood in preparing Soldiers and their families for deployment as well as the proximity of this base to Baylor University and the Waco VA, Fort Hood was a logical location to base the work of this project. Fort Hood, Texas is one of the largest active duty armored posts in the United States Armed Services. Fort Hood supports multiple units, to name a few there is the corps headquarters, 1st Calvary Division, 1st Army Division West, and 13th Sustainment Command which are prepared for rapid deployment. Fort Hood also facilitates the training and support requirements for many smaller units and organizations. Fort Hood's soldier population is 41,840 and the family member population is 70,778. The surrounding area is also home to 257,351 retirees, survivors, and family members.

Overview
This study reflects Phase II: Deployment Preparation of the larger programmatic line of research evaluating the effects of warzone deployments on Soldiers and their families. The deployment preparation period represents an important time for Soldiers and their families, and could have important implications for deployment and post-deployment functional adjustment. This study is a cross-sectional design that assesses functioning among Soldiers, Intimate Significant Others (ISOs), and parents prior to deployment.

Procedures
Participants and Recruitment. Soldiers were contacted through briefings held with their units and invited to volunteer for this assessment study. Soldiers completed the informed consent process followed by a 90-minute questionnaire battery that reflects both standardized instruments as well as questions designed by the research team. Each Soldier was asked to invite their ISO and/or parents to participate. We also attempted to directly recruit ISOs and parent (e.g., Family Readiness Groups). ISOs and parents were surveyed with similar tools as Soldiers.

IRBs of Record
Baylor University Institutional Review Board
Brook Army Medical Center Institutional Review Board
Texas A & M University Institutional Review Board
Central Texas Veterans Health Care System Institutional Review Board
Human Research Protection Office (HRPO)

Data Analysis
Sample Demographics
The sample for this project sought subjects from three populations: 1) Soldiers who were within 6 months of deployment; 2) ISOs; and 3) parents of Soldiers. The final sample included 351 Soldiers, 68 ISOs and 28 parents. Initial analyses have focused on the Soldier sample, which was primarily male (n = 251; 71.5%) in keeping with military demographics, although we successfully recruited 28.5% women (n = 99). Many of our original units were support troops, accounting for the higher representation of women. However, the addition of combat units brought the percentage closer to a normal gender representation over the course of the study. We believe that our oversampling of women is a strength of the study in order to conduct analyses that will help us to better understand the experiences of women in the military who are preparing for deployments. The average age of the sample was 28 years (SD = 6.9). In this sample, 58.4% were married and 52.8% had children.

With respect to educational level, 7.8% of enlisted Soldiers E01- E -09 in our sample had a Bachelor's Degree and 100% of officers 01-09 had at least a bachelor's degree. Comparatively, in the 2011 Department of Defense (DoD) Demographics report, 5.3% of enlisted members have a Bachelor's Degree or higher and 82.5% of officers have Bachelor's degrees. With respect to ethnic and racial distribution, 25.4% identified as Hispanic. The majority (59.4%) of our sample identified as White, 21.9% Black/African American, 4.6% Asian, 5.1% Native Hawaiian/Pacific Islander, 1.7% American Indian/Alaska Native, and 17.7% more than one race (numbers not mutually exclusive). Comparatively, the DoD (Office of the Deputy Undersecretary of Defense, 2010, p. iv.) reported that 30.2% of Active Duty members identified as persons from a minority group.

Soldiers have been in the military for an average of 5.8 years (SD = 6.0), with a mode of 1 year. Almost half (46%) were deploying for the first time, while 54% had deployed on 1 to 5 previous deployments.

Overall Functioning

In the full sample of Soldiers (n=348), there were generally low levels of stress (M = 9.6, SD = 9.5), depressive symptoms (M = 5.4, SD = 8.3), anxiety symptoms (M = 4.9, SD = 7.3) measured by the Depression, Anxiety and Stress Subscales (DASS-21), and trauma symptoms as measured by the PTSD Checklist (PCL)-Civilian (M = 33.6, SD = 14.9). Alcohol use was also quite low (Daily Drinking Questionnaires–Revised (DDQ-R) Quantity M = 1.9, SD = 7.1 drinks per week and DDQ-R Frequency M = 2.3, SD = 3.6 days per week), though tobacco dependence symptoms were in the low to moderate range on the Fagerstrom Test for Nicotine Dependence (FTND; M = 3.1, SD = 1.8). Soldiers reported experiencing an average of 2.9 potentially traumatic events (PTEs; SD = 2.5). Soldiers overall reported generally good family functioning on the Family Assessment Device–General Form (FAD-GF; M = 1.8, SD = 3.2). Finally, they reported moderate levels of negative religious coping (e.g., "Wondered whether God had abandoned me") on the B-RCOPE (M= 10.1, SD = 4.4).

Among those who had previously deployed, they reported minimal symptoms of posttraumatic stress disorder (PTSD) related to their military experiences, as reported on the PTSD Checklist-Military Version (PCL-M; M = 27.5, SD = 12.9). When comparing never-deployers vs. repeated-deployers on symptoms related to civilian trauma exposure, both groups reported similar levels of PTSD symptoms as measured by the PCL-Civilian Version (PCL-C; M = 32.2 vs. 34.8, respectively; p = .130). However, repeated-deployers endorsed statistically significantly more general stress, as measured by the DASS (DASS-Stress; t (334) = -2.15, p = .032). On the DDQ-R, repeated deployers also endorsed significantly more drinks per week (t (308) = -2.11, p = .036), greater frequency of drinking (t (311) = -3.11, p = .002), and a tendency toward greater drinking quantities when drinking (p = .075). There was also a tendency for repeated-deployers to report worse general family functioning on the Family Assessment Device (FAD-GF) than never-deployers (p = .065).

Probable PTSD
The number of participants in our sample who had probable PTSD was determined based on a score of 50 or higher on the PCL-C. A total of 10.2% (33/325) of the sample endorsed symptoms consistent with probable PTSD (M = 54.7, SD 7.2). More than half of those with probable PTSD reported being previously deployed (57.6%; 19/33); however, a significant proportion (42.4%; 14/33) indicated they were preparing for their first deployment, suggesting that their PTSD symptoms were related to pre-deployment (non-combat) events. Compared to those without probable PTSD, those with probable PTSD demonstrated lower resilience (Brief Resilience Scale; p <.001), and worse depression (DASS-Depression; p = .018), anxiety (DASS-Anxiety; p = .001), stress (DASS-Stress; p = .010), family functioning (FAD-GF; p = .028), and life interference (Subjective Symptoms Scale; p < .001). Overall, these findings indicate that only a small percentage of service members who are preparing for deployment have probable PTSD, which is in turn associated with worse mood and functioning. However, results should be interpreted with caution due to small sample size of those with probable PTSD.

Specific Aim 1 (Soldier to Soldier): To determine predictors of pre-deployment soldier functioning.

> Hypothesis 1A. Soldier's depressed mood, anxious mood and stress levels will be predicted by soldier's exposure to potentially-traumatic events (PTEs), trauma symptoms, problem drinking, severity of tobacco dependence, soldier quality of life, and soldier perspective of family functioning, religious coping, healthy behaviors, and personality.

Hypothesis 1A was tested using three individual multiple regressions, with DASS-21 Stress, Depression, and Anxiety subscales as the dependent variables. The sum score on the Life Events Checklist (LEC), the sum on the PCL-C, the DDQ-R Frequency scale, the total score on the FTND, the mean on the FAD-GF, the Negative Coping subscale of the B-RCOPE, and the NEO Neuroticism, Openness, Conscientiousness,

Agreeableness, and Extraversion subscales all entered simultaneously. The model predicting depressed mood was significant ($R^2 = .64$, Adj $R^2 = .61$, F (2,24) = 21.6, $p < .001$), with two personality variables being significant predictors (NEO-Neuroticism β = 1.1, $p < .001$) and NEO-Agreeableness (β = .48, $p = .009$). Anxiety was significantly predicted by trauma symptoms (β = .55, $p < .001$) and NEO-Openness (β = .33, $p = .035$), with the overall model accounted for 48% of the variance in anxiety ($R^2 = .52$, Adj $R^2 = .48$, F (2,24) = 12.8, $p < .001$). Finally, the model predicting stress symptoms was significant ($R^2 = .64$, Adj $R^2 = .61$, F (2,23) = 20.2, $p < .001$), with trauma symptoms (β = .69, $p < .001$) and NEO-Openness (β = .42, $p = .004$) being the only significant predictors. Thus, pre-existing trauma symptoms and certain aspects of personality appear to influence pre-deployment preparation symptoms of depression, anxiety and stress.

Hypothesis 1B. Problematic drinking among soldiers will be predicted by drinking motives, tobacco use, PTE exposure, trauma symptoms, soldier quality of life, and soldier perspective of family functioning, religious coping, and healthy behaviors.

Hypothesis 1B was tested with the same regression procedures, using the DDQ-R Frequency measure as the dependent variable. The Drinking Motives Questionnaire Social, Coping, Confidence, and Enhancement subscales, the total score on the FTND, sum on the LEC, the sum on the PCL-C, the mean on the FAD-GF, the Negative Coping subscale of the B-RCOPE were all entered simultaneously. The overall model was significant ($R^2 = .43$, Adj $R^2 = .38$, F (2,23) = 8.7, $p < .002$). PTEs from the LEC (β = .53, $p = .003$) and confidence motives for drinking (β = .37, $p = .026$) were significant predictors, accounting for 38% of the variance in drinking frequency.

Hypothesis 1C. Among Soldiers who have previously deployed, Soldiers with higher number of deployments and lower family functioning will report the highest level of depressed mood, anxious mood, and stress.

Hypothesis 1C was tested using a stepwise multiple regression with the scores on the DASS-21 depression, anxiety and stress subscales as the dependent variables. This hypothesis was tested only in Soldiers who have previously deployed (n = 185). In Step 1, we entered gender and age; in Step 2, we entered the sum on the LEC; in Step 3, we entered the number of previous deployments; in Step 4, we entered the mean on the FAD-GF, and in Step 5, we entered the interaction term previous deployments x FAD-GF. The overall model was significant and accounted for 13% percent of the variance in mood symptoms (F (6,118) = 3.94, $p < .001$, $R^2 = .17$, adj $R^2 = .13$), although contrary to predictions family functioning was the only significant predictor (β = .35, $p = .023$). When anxiety symptoms were the dependent variable, the only significant predictor was combat-related trauma symptoms (F(5,142) – 7.9, $p < .001$, $R^2 = .25$, adj $R^2 = .22$, β = .38, $p < .001$). Stress symptoms were significantly predicted by both combat-related trauma symptoms (β = .41, $p < .001$) and family functioning (β = .32, $p = .015$) and the overall model was significant (F(6,141) = 10.4, $p < .001$, $R^2 = .31$, adj $R^2 = .28$). The moderator of family functioning by number of previous deployments was not significant in any of the three prediction equations. Given that only a small portion of the variance

was accounted for in each model, this suggests that other factors may be affecting depression, anxiety and stress in previously deployed Soldiers, which will be an avenue for future analysis.

In summary, Soldier functioning in the whole sample among both previously-deployed and first-time deployers was generally good. Personality and trauma symptoms from non-military traumatic events accounted for the most significant portions of the variance in stress, depressed mood, and anxiety in the full sample. Personality and drinking to gain confidence influenced how much Soldiers drank alcohol. Perhaps most interestingly, Soldier perception of family functioning was the most important factor in predicting depressive symptoms when accounting number of previous deployments. Family functioning and combat trauma was most important in predicting stress symptoms, and combat trauma was the most important predictor of anxiety.

Specific Aim 2 (Soldier to Family): To determine how soldier functioning prior to deployment influences current family functioning.

Because of difficulty in recruiting spouses and parents to our study, our sample sizes for those groups (68 and 28, respectively) were underpowered to examine our original hypotheses. Instead, the following analyses reflect Soldiers' perceptions of family functioning, and family solidarity. For the purposes of family functioning analyses, married and unmarried soldiers were analyzed separately because marital status affects soldier response to family functioning variables based on the referent being family of origin or current marital relationships.

> Original Hypothesis 2A. Family functioning, relationship quality and familial solidarity will be predicted by Soldier's trauma symptoms, drinking behaviors, mood, stress, religious coping and attachment style.

> Hypothesis 2A.a (adapted – married soldiers). Soldier's perceptions of family functioning will be predicted by the Soldier's trauma symptoms, stress, depressed mood, anxiety, and religious coping.

Backwards stepwise regression analysis was used to test this hypothesis; (family functioning FAD-GF as the dependent variable and individual measures as independent variables (PCL-Civilian, DASS 21 Depression, Stress, and Anxiety, RCOPE Positive, and RCOPE Negative). Three significant models resulted, with the last model [$F_{(4, 179)}$ = 10.423, $p < .001$)] explaining approximately 17% (R^2 = .189; R^2 adj = .171) of the variability in married soldiers' perceptions of family functioning. Four variables were included in this model. These were depressed mood (β = .219, $p < .009$), negative religious coping (β = .202, $p = .006$), positive religious coping (β = -.132, $p = .059$) and trauma symptoms (β = .132, $p = .096$). (Note: direction of correlations reflects the point that a higher score on the FAD indicates *less healthy* family functioning.)

> Hypothesis 2A.b (adapted – married Soldiers). Relationship quality will be predicted by the Soldier's trauma symptoms, depressed , ppd, anxiety, and stress, and religious coping.

Using relationship quality (DAS_14 Marital Adjustment) as the dependent variable and individual measures as independent variables (PCL-Civ sum, DASS 21 Depression, Anxiety, and Stress, RCOPE Positive, and RCOPE Negative), a second backwards regression analysis was completed. Four significant models resulted, the last ($F(3, 174)$ = 12.152, $p < .001$) explaining approximately 16% (R^2 = .173; R^2 adj = .159) of the variability in marital adjustment scores. Three independent variables were retained in this model – stress (β = -.293, $p < .001$), positive religious coping (β = .237, p =.001), and negative religious coping (β = -.135, p = .071).

> Hypothesis 2A.c (adapted – married Soldiers). Family balanced cohesion will be predicted by the Soldier's trauma symptoms, depressed mood, anxiety, stress, and religious coping.

To test this hypothesis backwards regression analysis was completed with family cohesion (FACES IV_Balanced Cohesion) as the dependent variable and individual measures as independent variables (PCL-Civ sum, DASS 21 Stress, DASS 21 Depression, DASS 21 Anxiety, RCOPE Positive, and RCOPE Negative). Four significant models resulted from the analysis with the third of the four ($F(4, 177)$ = 8.823, $p <.001$) retaining four independent variables and explaining the most of the variability in soldiers' perceptions of family cohesion. Approximately 15% (R^2 = .166; R^2 adj = .147) was explained by depressed mood (β = -.360, $p < .001$), positive religious coping (β = .229, p = .001), negative religious coping (β = -.146, p = .052), and stress (β = .152, p =.121).

Two hypotheses were tested for unmarried Soldiers. For both of these analyses, low sub-sample size (unmarried soldiers who had completed all necessary instruments) made it necessary to use theory and to examine correlations to determine which independent variables would be included. Backward regression analysis was used for both.

> Hypothesis 2A.d (adapted – unmarried Soldiers). For unmarried soldiers, familial solidarity will be predicted by the Soldier's trauma symptoms, stress, depressed mood, anxiety, and religious coping.

No significant models resulted when familial solidarity (MFS_Total) was used as the dependent variable and trauma symptoms (PCL_CIV), religious coping (Brief RCOPE Positive), depression (DASS 21_Depression) and stress (DASS 21_Stress) were used as independent variables.

> Hypothesis 2A.e (adapted – unmarried Soldiers). For unmarried Soldiers, family functioning will be predicted by soldier's trauma symptoms, stress, depressed mood, anxiety, and religious coping.

Four significant models resulted when family functioning (FAD_GF) was used as the dependent variable and trauma symptoms (PCL_CIV), stress (DASS21_Stress), depression (DASS 21_Depression), and anxiety (DASS 21_Anxiety) were entered as independent variables. In the last model ($F(1, 68) = 9.160$, $p = .003$), depressed mood alone was retained ($\beta = .345$, $p = .003$) and explained a small, but significant portion, approximately 11% ($R^2 = .119$; R^2 adj = .106), of the variability in family functioning scores..

In summary, Hypotheses 2A.a, 2A.b, and 2A.c were partially supported for married soldiers. Small but significant links were found between several individual variables (i.e., trauma symptoms, stress, depression, anxiety, and religious coping) and family functioning, relationship quality, and family cohesion. Religious coping emerged as a key component of the models for all three family variables and depression was a key component of the models for two family variables. The hypotheses for unmarried soldiers explored the individual variables which might help explain soldiers' perceptions of family of origin solidarity and family functioning. Hypothesis 2A.d was not supported; no significant models emerged to help explain family of origin solidarity scores. Hypothesis 2A.e was partially supported, with depression emerging as the individual variable that explained a portion of family functioning scores.

Specific Aim 3 (Family to Soldier): To determine how family functioning during deployment preparation influences current Soldier functioning.

In light of new literature, and with an effort to simplify our original hypotheses, several of our family functioning hypotheses were adapted. For the purposes of family functioning analyses, married and unmarried soldiers were analyzed separately because marital status affects soldier response to family functioning variables based on the referent being family of origin or current marital relationships.

> Hypothesis 3A (adapted-married). Among married Soldiers, current levels of family functioning, relationship quality, family cohesion, family flexibility, family satisfaction, family communication, social support, will predict Soldier depressed mood, anxious mood, and stress levels.

Stepwise regression analyses were used to test this hypothesis separately for each outcome: DASS-21-Depression, Anxiety, Stress. Our hypotheses were supported in part, varying with respect to the mood/stress subscale. In each case all IVs were entered (FAD-GF, DAS-14-Marital Adjustment, FACES IV_IF Balanced Cohesion, Balanced Flexibility, and Communication, and FIRA-M Social Support Index) and backwards stepwise regression was used to determine significant linear models that explained variability in the dependent variable. With respect to depression, the final model retained social support ($\beta = -.221$, $p = .008$); Immediate Family Communication ($\beta = .316$, $p = .026$); Marital Adjustment ($\beta = -.200$; $p = .066$); Family Functioning ($\beta = .192$, $p = .091$); and Immediate Family Flexibility ($\beta = -.193$, $p = .091$), as significant predictors, which explained a combined 15% of the variance ($R^2 = .181$; adj $R^2 = .154$; $F(5, 157) = 6.919$, $p < .001$). The final model resulting from the backwards stepwise regression completed with anxiety as the DV retained two of the seven IVs ($F (2, 158) =$

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11.473, $p < .001$) to explain a small but significant proportion ($R^2 = .127$; adj $R^2 = .116$) of the variability in Anxiety. These were Marital Adjustment ($\beta = -.234$, $p = .004$) and Social Support ($\beta = -.192$, $p = .018$). Finally, backwards stepwise regression analysis indicated that two variables combined ($F (2, 162) = 11.082$, $p < .001$) to explain a significant, albeit small proportion ($R^2 = .121$; adj $R^2 = .110$) of that variability in stress levels. As with Anxiety, Marital Adjustment ($\beta = -.211$, $p = .01$) and Social Support ($\beta = -.206$, $p = .011$) were significant predictors. These data suggest that marital adjustment and social support may be particularly important in understanding depression, anxiety and stress reactions during deployment preparation.

> Hypothesis 3A (adapted-unmarried): Among unmarried soldiers, current levels of family functioning, familial solidarity , family of origin cohesion, family of origin flexibility, family of origin satisfaction, family of origin communication, and social support will predict Soldier depressed mood, anxious mood, and stress levels.

The sample of unmarried Soldiers who completed all instruments measuring the independent variables was small, between 60 and 90 for various analyses. To maintain the minimum of 15 cases per independent variable, family theory and correlations between variables were used to select models that included four independent variables for each analysis. Backwards stepwise regression was then used for separate models using stress, anxiety, and depression as the dependent variables. For Stress, the four independent variables included were social support (FIRA-M SSI), family functioning (FAD_GF), family of origin balanced flexibility (FACES IV_FOO Balanced Flexibility), and family of origin affectional solidarity (MFS_AFFEC). The combination of two variables, Family of Origin Balanced Flexibility ($\beta = -.305$, $p = .024$) and Social Support ($\beta = -.192$, $p = .152$) combined to explain approximately 17% ($R^2 = .440$; Adj $R^2 = .169$) of the variability in stress scores. With Anxiety as the dependent variables, the four independent variables included were Social Support, Family of Origin Affectional Solidarity, Family of Origin Balanced Cohesion, and Family of Origin Balanced Flexibility. The regression yielded four significant linear models. In the final model only one variable (Social Support, $\beta = -.347$, $p = .002$) remained to explain a small proportion (approximately 11%; $R^2 = .347$; Adj $R^2 = .109$) of the variability in Anxiety scores. Finally, Depression was used as the dependent variable with four independent variables (Social Support, Family of Origin Affectional Solidarity, Family Functioning, and Family of Origin Balanced Flexibility) entered. The final model retained Social Support ($\beta = -.336$, $p = .009$) and Family Functioning ($\beta = .221$, $p = .082$) which together explained approximately 22% ($R^2 = .238$; Adj $R^2 = .215$) of the variability in Depression scores. Again, these data highlight the commonalty of social support as a key predictor across depression, anxiety and stress.

> Hypothesis 3B (adapted-resilience). A combination of family factors, including family functioning, familial solidarity, family of origin cohesion, flexibility, satisfaction, and communication will predict Soldier self-reported resilience.

Backwards stepwise regression was used to test this hypothesis with the Brief Resilience Scale (BRS) as the primary dependent variable. All IVs were initially entered and a series of five linear models resulted. The final model indicated that Family Functioning (FAD-GF) and Family of Origin Satisfaction (FACES IV_FOO Satisfaction) combined ($F(2, 186) = 21.055$, $p < .001$) to explain the approximately 18% ($R^2 = .185$; Adj $R^2 = .176$) of the variability in self-reported Soldier resilience scores. Perceptions of Family of Origin Satisfaction and Family Functioning contributed almost equally model (satisfaction: $\beta = .274$, $p < .001$; family functioning: $\beta = -.270$, $p < .001$).

Hypothesis 3B (adapted-PFAD). Among married soldiers, current levels of family functioning, relationship quality, and family cohesion, and Soldier resilience will predict perceived family assets for deployment.

Perceived family assets for deployment (PFAD) served as the primary dependent variable for this hypothesis. As the PFAD was developed for the current study, we conducted a preliminary psychometric analysis of this measure. The PFAD was developed as a set of items designed to directly measure participants' perceptions of their families' readiness for deployment separation. To our awareness there are no existing measures of pre-deployment of family functioning in the literature, and thus, we view this measure as a potential contribution to the field in and of itself. Exploratory factor analysis (principal components with varimax rotation) was conducted using the 7 items of the PFAD to determine factors which emerged. The responses of 233 participants who had completed all of the PFAD items were included in this analysis. Two components/factors emerged and seemed to representative: 1) "positive perceptions of readiness" (items 2, 3, 4, 5, 6) with an adequate inter-item reliability estimate for research purposes (i.e., Cronbach's alpha = .78); and 2) negative perceptions of readiness (items 1, 7 included in the analysis after they were reversed scored). As the "negative perception of readiness" factor consisted of only two items it was not used as a scale in further analysis. The "positive perception of readiness" factor was used as a new variable labeled the PFAD scale which was used in further analyses as a measure of family perceived readiness for deployment variable. Preliminary psychometric analysis supports the preliminary utility of this measure. Future studies will examine its predictive utility.

Backwards stepwise regression was used to test the effects of family predictors (FAD-GF), Dyadic Adjustment Scale (DAS) 14-Marital Adjustment, FACES iv_Balanced Cohesion, and Soldier's self-reported perceived Resilience (BRS) on PFAD. Analyses resulted in three linear models. The final model included Family Functioning (FAD-GF) and Soldier Resilience (BRS) ($F(2, 169) = 22.071$, $p < .001$) which combined to explain approximately 20% ($R^2 = .202$; Adj $R^2 = .198$) of the variability in Perceived Family Asset scores. Perceptions of Family Functioning contributed the most to the model ($\beta = -.328$, $p < .001$), with Soldiers' current Resilience (BRS) following close behind ($\beta = .238$, $p = .001$).

In summary, results suggest that social support is a key component of understanding stress, depression, and anxiety reactions for married soldiers in the pre-deployment phase. Additionally, family variables (i.e., family functioning, communication, and flexibility; marital adjustment) were also linked to depression. Social support and marital anxiety combined to help explain both anxiety and stress scores. For unmarried soldiers as well, social support emerged as a key variable to understanding stress, anxiety, and depression. For all soldiers, resilience was linked to both perceptions of family functioning and family of origin satisfaction. Family functioning and individual resilience were key components of explaining married soldiers' perceptions of pre-deployment family readiness.

Reportable Outcomes
Products
As detailed above, the data are now being analyzed, with several manuscripts in preparation for submission. In addition, during the course of the study, we have produced several manuscripts and presentations based on the available data.

Citations

Presentations and publications from this project

1. Myers, D., Crow, J., Ellor, J., Morissette, S., Dolan, S., & Reese, S. (2014). Congregational responses to parents of military service-members. *Family and Community Ministry*, 27, 65-86.
2. Crow, J., Ellor, J., Myers, D., Dolan, S., Morissette, & S., Reese. (2013, September). *Social work practice with parents of deployed service members.* Paper presented at the National Association of Social Workers-Texas Annual Meeting, Austin, TX.
3. Crow, J. R., Myers, D. R., Ellor, J., Dolan, S., Reese, S., Whitacre, J. & Morissette, S. (2013, November). Military deployment as experienced by service-members, spouses, and parents of service-members: Similarities and differences. Paper presented at National Council on Family Relations 2013 Conference, San Antonio, TX.
4. Ellor, J. W., Crow, J., Dolan, S., Morissette, S., Myers, D., Reese, S., Rivers, F. (2011). *Walking Along Side Military Families: Military Family Coping Project.* Paper presented at the NASW-Texas, Dallas, TX.
5. Ellor, J. W., Myers, D., Dolan, S., Crow, J., Morissette, S., Reese, S., Rivers, F. (2011). *Walking Along Side Military Families: Military Family Coping Project.* Paper presented at the Council for Social Work Education, Atlanta, GA.
6. Ellor, J. W., Crow, J., Dolan, S., Myers, D., Reese, S., & Morissette, S. (2011, April). *Intergenerational Coping in Times of Military Trauma: The Military Family Coping Project.* Poster presented at the Annual Meeting of the American Society on Aging, San Francisco, CA.
7. Maranville, P. G., Sanford, K., Ellor, J. W., Crow, J. R., Dolan, S., Myers, D. R., Morissette, S. B., Reese, S., Whitacre, J. (2014, November). *Assessing Interpersonal Relationships in Deploying Soldiers: Is It Informative or Redundant to Measure Multiple Relationship Types?* Poster presented at the Association for Behavioral and Cognitive Therapies 48th Annual Convention, Philadelphia, PA.

Media
1. Dennis, Regina (Staff Writer). (2012, February 28). *Baylor, Waco VA hospital studying veterans' family stress.* Waco, TX: Tribune Herald.
2. Slayden, Stacey (Reporter). (2012, February 28). *VA Hospital and Baylor University team up to study effects of deployment.* Waco, TX: Fox 44 news.
3. Fogleman, Lori (Media Contact). (2012, February 17). "Baylor University Research Team Receives $350,000 Grant to Fund Second Phase of Military Family Coping Research Project." Baylor University Media Communications, http://www.baylor.edu/mediacommunications/news.php?action=story&story=109624.

Training/Student Projects
In addition to the research mission of the project, we devoted significant time to training personnel to work on this project. We trained approximately 7 MSW students in conducting research with military populations. A majority of these students received stipends for their work on the study, as study research assistants. In addition, approximately 9 students completed student projects using our dataset, as part of their course requirements to complete their Master's degree in social work. These projects are listed below. In addition, 1 Psy.D. student worked on a topic based on secondary analysis of our data (Maranville et al., 2014, see above).

1. Rathbun-McVeigh, Heide (2015). How Co-Occurring Factors of Family Communication, Stress, General Functioning and Family Satisfaction Predict Soldiers' Perceptions of Family Readiness Presented at the Baylor School of Social Work Colloquium, May 2014.
2. Wright, Nicholas (2015), Impact of Psychological Flexibility and Traumatic Event Exposure on the Quality of Life of U.S. Soldiers. Presented at the Baylor School of Social Work Colloquium, May, 2015.
3. Hummel, Venee (2014). Predeployment Mental Health Concerns and Help-Seeking Behaviors Among U.S. Army Soldiers Presented at the Baylor School of Social Work Colloquium, May, 2014.
4. Bartholomew, Bailey (2013). Perceived Emotional Influence on Alcohol Consumption Among Multiple Deployment Soldiers, a Comparative Study between Men and Women. Presented at the Baylor School of Social Work Colloquium, May, 2013.
5. Feller, Celia (2013). Walking Alone: Soldiers Returning from Deployment Seek Religion as a Coping Mechanism for Depression. Presented at the Baylor School of Social Work Colloquium, May, 2013.
6. Hixson, Tara (2013). Soldier's Perceptions of Family Assets During Deployment: Do Perceptions Differ if a Soldier has Children? Presented at the Baylor School of Social Work Colloquium, May, 2013.
7. Paolillo, Ashely (2013). Levels of Stress and Anxiety in Regards to Relationship Status Among United States Soldiers, Presented at the Baylor School of Social Work Colloquium, May, 2013.
8. Primous, Sandi (2013). The Impact of Combat Stress on Alcohol Use Among Active Duty Service Members, Presented at the Baylor School of Social Work Colloquium, May, 2013.
9. Hebbe, Kimberly (2013). The Effects of Age and Previous Deployments on Smoking Among Male Active Duty Service Members, Baylor University, Department of Social Work, Waco, TX.

Reference
Office of the Deputy Undersecretary of Defense (2012). 2011 Demographics: Profile of the Military Community up dated November 2012. Washington D. C.: Department of Defense. P. iv.

BAYLOR UNIVERSITY

Financial Status Report

5/6/2015

Sponsor

US Army Med Research Acq Activity
820 Chandler St
Ft. Detrick, MD 21702-5014

B.U. Project	43030111
B.U. Contract	2100380
Grant period	8/8/2011 to 2/7/2015
Award Ref	W81XWH-11-2-0470
Prime Award Ref	

Report for 1/1/2015 - 2/7/2015 under the contract between US Army Med Research Acq Activity and Baylor University for the project "Military Family Coping Project - Phase 2". Project director is Jim Ellor.

Cost Category	Budget	Current	Cumulative	Balance
Salary & Wages	164,644.86	3,350.00	178,631.17	-13,986.31
Fringe Benefits	35,841.00	0.00	20,353.09	15,487.91
Supplies	9,245.54	0.00	9,160.52	85.02
Participant Support Cost	12,581.30	0.00	7,700.00	4,881.30
Professional Fees	34,594.50	1,000.00	35,594.50	-1,000.00
Travel	3,513.80	0.00	3,513.80	0.00
Subtotal:	**$260,421.00**	**$4,350.00**	**$254,953.08**	**$5,467.92**
F&A rate 36.5%:	89,579.00	880.76	89,579.00	0.00
Total:	**$350,000.00**	**$5,230.76**	**$344,532.08**	**$5,467.92**

Prepared by Pamela Tull
Project Coordinator
Office of Sponsored Programs